

**PORTLAND HARBOR RI/FS**  
**APPENDIX M**  
**GREEN REMEDIATION PLAN OUTLINE**  
**FEASIBILITY STUDY**

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## **M1. GREEN REMEDIATION PLAN OUTLINE**

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Below is a generic outline for a Green Remediation Plan EPA expects to be followed for individual actions to be implemented after issuance of the ROD for the Site:

**1) Introduction:** Definition of green remediation

- a) Discuss EPA's five core elements of green remediation
- b) Reference EPA Region 10's Clean and Green Policy

**2) Purpose of the Green Remediation Plan**

- a) Becomes a remedial design document for incorporation into project plans and specifications and for reference during construction
- b) Covers the proposed remedial action only
- c) Discuss the process for incorporating green remediation into the proposed action
  - i) The plan covers the entire environmental footprint of the action, from start through site close-out
- d) Provide guidelines and process with build-in flexibility in anticipation of:
  - i) Updated or new technologies to mitigate climate change (reduce carbon footprint) that should be developed into BMPs for consideration
  - ii) New site data
  - iii) New remedial technologies
  - iv) New monitoring technologies
  - v) Evolving community and business needs

**3) Work Activities:** Break-down the proposed remedial action into its component processes

- a) Individual remediation technologies
  - i) Dredging
  - ii) Capping
  - iii) Enhanced monitored natural recovery

- b) Processes that make up each remedial technology
  - i) Transport
  - ii) Excavation
  - iii) Stockpiling
  - iv) Disposal
  - v) Monitoring
- 4) Identification of Best Management Practices:** Identify most relevant green remediation BMPs
  - a) Based on dominant processes identified in Item 3 above
  - b) Select most relevant BMPs from large lists in existing guidance including:
    - i) Numerous EPA green remediation technology-specific BMP documents
    - ii) EPA Methodology for Understanding and Reducing a Project's Environmental Footprint: EPA 542-R-12-002
    - iii) ASTM Standard Guide for Greener Cleanups: ASTM E2893-13
  - c) Organize BMPs by EPA green remediation core elements
  - d) Include only the few most relevant BMPs for each core element
    - i) Do not construct an exhaustive list that includes minor or barely relevant BMPs
- 5) BMP Rating:** Rate the selected BMPs
  - a) For feasibility and ease of implementation
  - b) Recommend for or against implementation of each BMP
    - i) Flag as requiring more study if appropriate
- 6) BMP Selection:** Select BMPs with the potential to contribute the greatest positive impact to project
- 7) Documentation:** EPA Region 10's Clean and Green Policy has an expectation for measurement of the cost differentials and environmental benefits associated with implementing the policy. Examples include but are not limited to tracking quantities of

materials reduced, reused, or recycled; carbon or greenhouse gas reductions; and water conserved or replenished. To support this effort, project completion documents will include a summary of all actions implemented consistent with the Clean and Green Policy. Estimates of the quantities of materials reduced/reused/recycled, carbon or greenhouse gas reductions, etc., will be summarized and tabulated or presented in graphics. To the extent practicable, costs associated with implementation of these measures should also be summarized. For example, project costs associated with the addition of diesel exhaust retrofit devices can be compared with costs if retrofit was not performed.

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